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## ABSTRACT

This plan for implementing the redesign and refocus of vocational education in West Virginia includes a mission statement and five other major sections covering career orientation, secondary vocational education, adult education, modernization, and personnel development. The career orientation program includes developmental guidance, student assessment, exploratory courses, and development of a four-year educational plan. This section recommends changes in state policy to require that developmental guidance be a formal class and that nine-week exploratory courses be offered in four discipline areas with each student being required to take two. Secondary vocational education classes are to be based upon a common core of basic skills, are to encourage students to enroll in applied and related academic courses, are to promote higher academic expectations, and are to provide an option of certification. The plan recognizes the responsibility for providing adults with training opportunities in both day and evening programs. Specific goals have been established to improve access and increase the number of adults served. Additional staffing and development of a 13th-year program are also a part of the plan. The plan's proposed updating and modernization will span all levels and all programs within vocational education to foster staff development and reflect the changing opportunities and requirements of the workplace. (KC)

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# PLAN FOR THE REDESIGN AND REFOCUS

## OF VOCATIONAL, TECHNICAL AND ADULT EDUCATION

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**PLAN FOR THE REDESIGN AND REFOCUS  
FOR VOCATIONAL, TECHNICAL AND ADULT EDUCATION  
IN WEST VIRGINIA**

Prepared by  
Bureau of Vocational, Technical and Adult Education

Approved by  
West Virginia Board of Education

February 1988

## TABLE OF CONTENTS

|                                                                         | Page |
|-------------------------------------------------------------------------|------|
| EXECUTIVE SUMMARY.....                                                  | 1    |
| PREFACE.....                                                            | 3    |
| MISSION AND PURPOSES.....                                               | 5    |
| ABSTRACT OF EACH OF THE FIVE MAJOR SECTIONS OF THE PLAN.....            | 7    |
| CAREER ORIENTATION.....                                                 | 7    |
| SECONDARY VOCATIONAL EDUCATION.....                                     | 8    |
| ADULT EDUCATION.....                                                    | 10   |
| MODERNIZING VOCATIONAL PROGRAMS.....                                    | 12   |
| PERSONNEL DEVELOPMENT.....                                              | 15   |
| IMPLEMENTATION PLAN IN EACH OF THE FIVE MAJOR SECTIONS OF THE PLAN..... | 18   |
| CAREER ORIENTATION.....                                                 | 18   |
| SECONDARY VOCATIONAL EDUCATION.....                                     | 23   |
| ADULT EDUCATION.....                                                    | 34   |
| MODERNIZING VOCATIONAL PROGRAMS.....                                    | 47   |
| PERSONNEL DEVELOPMENT.....                                              | 55   |
| ATTACHMENT I TO SECONDARY EDUCATION.....                                | 32   |
| ATTACHMENT II TO ADULT EDUCATION.....                                   | 43   |

## EXECUTIVE SUMMARY

The plan for implementing the redesign and refocus of vocational education includes a mission statement and five other major sections covering career orientation, secondary vocational, adult vocational, modernization, and personnel development.

The career orientation program includes developmental guidance, student assessment, exploratory courses, and development of a four-year educational plan. This section recommends changes in Policy 2510 to require that developmental guidance be a formal class and that nine-week exploratory courses be offered in four discipline areas with each student being required to take two.

Secondary vocational education classes in grades 9 through 12 will be based upon a common core of basic skills, will encourage students to enroll in applied and related academic courses, promote higher academic expectations, and provide an option for "certification."

Previously, no official statement recognizing public education's responsibility for the training of adults had been adopted by the state board of education. This plan recognizes the responsibility for providing adults with training opportunities in both day and evening programs. Specific goals have been established to improve access and increase the number of adults served. Additional staffing is also indicated to oversee programs serving adults. Development of a specialized 13th year advanced program is also a part of the plan.

Of course, in order to make the changes called for, considerable retraining--both instructors and administrators--will be necessary. Additionally, changes in initial certification requirements will be made to insure that future teachers will possess skills required. A theme of cooperation and collaboration between vocational and academic teachers underlies the entire plan for professional development.

Updating and modernization will span all levels and all programs within vocational education to reflect the changing opportunities and requirements of the workplace. Special emphasis will be given to the utilization of computers, electronics, and robotics in the redesign of the curriculum for all vocational areas.

Proposed changes in these five sections which make up the implementation plan will result in a vocational program that will better prepare citizens of West Virginia to enter and perform successfully in the world of work, both today and tomorrow.

## PREFACE

In a continuous effort to update, refocus, and, where necessary, redirect vocational education in West Virginia, the West Virginia Board of Education in 1986 directed that a thorough study be conducted to determine the relative effectiveness of vocational instruction and facilities in the state. This study was to provide information relating to the current status of vocational education and recommendations for improvement. In addition, the study was to provide data for use in establishing the mission, goals, and objectives for vocational education for the next decade.

The state board's purpose for redesigning and refocusing vocational education was to significantly upgrade vocational education and better prepare citizens to enter and perform successfully in the world of work, both today and tomorrow. This implementation plan addresses three major challenges affecting vocational education: (1) continuing and rapid technological change, (2) increasing change in the characteristics of the work force, and (3) supporting the economic stability of individual citizens and the state.

The responsibility for determining the current effectiveness of vocational education, and to make recommendations for improvement, was delegated to a committee named the State Committee for Redesign and Refocus of Vocational Education in West Virginia. Composed of some 28 persons representing business, industry, labor, education, government, and the general public, the committee met on a periodic basis to consider pertinent information and statistics regarding vocational programs, manpower needs, student outcomes, personnel, facilities, fiscal resources, and other data relating to strengths and weaknesses of the program throughout the state.

Dr.. Gene Bottoms, former executive secretary for the American Vocational Association, was hired as a consultant to assist the committee in acquiring data and in preparation of the final report.

A series of 43 public forums was held in December, 1986, in order to gain input from the public regarding the adequacy of vocational education. Approximately 2,200 persons attended these forums, held in each county in the state except where counties participating in multi-county vocational centers chose to hold a single meeting for the counties served by the center. During these forums, a questionnaire was distributed and more than 1,400 participants completed and returned the form. Results were tabulated, as were written comments and suggestions, and the data were given to each committee member.

Following the release of the draft copy of the report of the committee, a second series of 42 public forums was conducted in order to get the reaction of the public to the recommendations. More than 1,150 persons attended and were given a chance to express their views and concerns, and were asked to complete a questionnaire relating to the priority rating of each recommendation which was distributed at the meetings. Responses from more

than 800 persons were cumulated, along with written comments, and given to the task force of the bureau of Vocational, technical and adult education, which was appointed to draw up the operational plan for redesign and refocus.

The recommendations from the "Report of the State Committee for Redesign and Refocus of Vocational Education," prepared by Dr.. Gene Bottoms, and the recommendations from the public forums held throughout the state were utilized extensively in preparing the "Implementation Plan for the Redesign and Refocus of Vocational Education."

It is important to note that the state board does not have sufficient funds to support all of the activities identified as priorities. Therefore, those activities deemed most critical to the department of education purpose--that of providing statewide leadership and services to ensure quality vocational, technical and adult education for students to meet the work force needs of West Virginia--will receive priority for those state and federal funds previously identified. This approach requires quality input to formulate the priorities. The data sources used to develop this implementation plan were program information provided by county directors and county plans which are filed at the department of education, supplemented by labor market information, reports from program advisory committees, and individual research and analysis of various statistics relating to vocational education.

In recent years, the state board has developed several documents which have been plans of a very specialized nature. Most have been general funding applications produced in response to federal requirements for the acquisition of federal funding. The most ambitious federal plans were those mandated by various vocational education acts, which required all local, state, and federal monies used for vocational education in the state to be planned and accounted for by the agency according to a federal prescription. This approach resulted in a large document which, as a plan, had rather limited use. In a state where a high percentage of vocational education revenue comes from local funds, and where budgeting is a county responsibility, neither federal funds nor plans markedly influence county program priorities except perhaps for services to target populations where federal money is proportionately more available. Thus, vocational education plans developed in response to federal vocational legislation served primarily as justification for the expenditure of federal funds.

The implementation plan for the redesign and refocus of vocational education in West Virginia was approved by the West Virginia Board of Education. However, it is not state board policy. State board policies will be initiated as appropriate to implement various recommendations contained in the plan. The availability of funds will be a factor as to when some of the recommendations will be required to be implemented statewide. It is not the intent of the state board to require counties to implement policies if funds are not available. However, the plan does provide directions for counties to follow in improving vocational, technical, and adult education. Some of the recommendations can be implemented statewide within a short period of time. It is anticipated that all or most of the recommendations in the plan will be implemented in some of the counties within three years.

## MISSION AND PURPOSES

### Mission

The mission of vocational education is to provide occupational and related training to all West Virginia residents who need, want, and can benefit from such training.

### Purposes

- \* To provide occupational training and retraining programs which enable individuals to obtain the knowledge and skills necessary for employment at a technical, paraprofessional, skilled, or semiskilled level; such programs to include basic education required to facilitate student achievement in occupational skills training.
- \* To provide customized training and technical assistance to business and industrial firms and agencies in order to foster economic growth and expansion of employment opportunities of West Virginia residents.
- \* To assist county boards of education to provide community services and avocational or self-enrichment activities.
- \* To provide assistance to county boards of education to establish programs and services to help remove barriers created by race, sex, or other prejudicial factors and which assist minorities, women, and individuals who are handicapped or disadvantaged to participate in the full range of vocational, technical, and adult education programs.
- \* To provide assistance to adults who may need to upgrade their skills to meet technological change or for occupational advancement.
- \* To coordinate activities to facilitate the transition of secondary students into postsecondary vocational education programs conducted by state and community colleges.
- \* To assist county boards of education to provide education and services relating to career decisions; including prevocational education, career exploration activities, and developmental guidance.
- \* To assist county boards of education to provide programs of consumer and homemaking with emphasis on assisting individuals to become more capable homemakers and more informed consumers.
- \* To assist county boards of education to provide practical experiences for students through training in technology education (industrial arts) programs.
- \* To cooperate with various agencies in efforts to decrease the number of students who leave school prior to receiving a high school diploma.

- \* To provide training for vocational teachers in order that instruction is kept current with the changing demands of the workplace.
- \* To coordinate activities to continually update curriculum materials and learning outcomes in order to assure that students receive training which reflects changes in technology and employment requirements.
- \* To initiate interaction with various state and federal agencies in order to assure that undesirable duplication of services does not occur, and that vocational programs and services are provided in a thorough and efficient manner.

# ABSTRACT OF THE MAJOR SECTIONS OF THE PLAN

## CAREER ORIENTATION

| CURRENT STATUS                                                                                                                                                                                                                                                                                                                                                                                                                                           | PROPOSED IMPLEMENTATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | TIME LINES                                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| <p>Developmental guidance is available to students in grades 5-8. No time requirements are indicated. Implementation ranges from very short-term activities in a regular academic class at each grade level to 12% time for some students in a separate class.</p> <p>Unified arts, industrial arts, and/or consumer and homemaking are offered as electives in some schools.</p> <p>Prevocational exploration is an option on a very limited basis.</p> | <p>Recommendation--The state board of education should revise Policy 2510 with regard to developmental guidance and redesign and expand student participation in a comprehensive and articulated program of career orientation, exploration, and "living skills" development in grades 7 and 8.</p> <p>1. A 9-week developmental guidance class should be a required activity for all students in the 7th grade and in the 8th grade. A 4-year educational and career plan will be developed by the end of the 8th grade. The plan will involve parents and be updated annually. Students' interests and aptitudes and career and educational information will be a basis for planning.</p> <p>2. Access to at least four 9-week exploratory courses in at least two career discipline areas will be provided. Two of these courses will be required by all students at some time in the 7th or 8th grade. The courses will be based on common goals and should reflect modern communication, scientific and technological concepts that underlie the home, community, and workplace. Assessment will be conducted and coordinated remediation will be provided in basic skills.</p> | <p>FY 89 - 50%</p> <p>FY 90 - 75%</p> <p>FY 91 - 100%</p> <p>FY 89 - 0%</p> <p>FY 90 - 50%</p> <p>FY 91 - 100%</p> |

| CURRENT STATUS | PROPOSED IMPLEMENTATION                                                                                                | TIME LINES        |
|----------------|------------------------------------------------------------------------------------------------------------------------|-------------------|
|                | 3. Approved career exploration programs as they currently exist in grades 7-10 may be continued as an option.          | Continued options |
|                | 4. School counselors must be actively involved in the guidance activities and participate in an appropriate inservice. | Continued         |

#### SECONDARY VOCATIONAL EDUCATION

Students have limited access to semester-length courses in technology (industrial arts), business, health occupations, career exploration, occupational home economics, marketing, and vocational agriculture education. Under West Virginia Board of Education Policy 2510, STEPS is a required offering in consumer and homemaking education. Common goals for the existing courses in grades 9 and 10 have not been established.

Programs in grades 11 and 12 are normally taught in 3-hour block time segments. The term "vocational completer" is not defined. There is no requirement for students two or more grade levels behind in math to be provided remediation. Access to applied courses is limited and there are no requirements to take advanced related academic courses.

- |                                                                                                                                                                                                                  |          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| 1. Provide students access to semester-length foundation foundation courses related to vocational education from three discipline areas in grades 9 and 10.                                                      | FY 89-91 |
| 2. Articulate the instruction of basic skills with general education                                                                                                                                             | FY89-91  |
| 3. Implement a 4-year educational plan for each student.                                                                                                                                                         | FY 89-91 |
| 4. Provide new technology education (industrial arts) programs and update existing programs for grades 9 and 10 as one of the three discipline areas if funds can be obtained.                                   | FY 89-91 |
| 1. Define program completer.                                                                                                                                                                                     | FY 89    |
| 2. Encourage vocational students to take 4 units in an area of vocational concentration; 2 units in applied academic courses or 2 units in advanced related academic courses; and 2 units in foundation courses. | FY 89-91 |
| 3. Require non-vocational students to complete 4 units in higher academic courses; or choose a subject field for indepth study of at least 4 units; or complete the college preparatory curriculum.              | FY 89-91 |

| CURRENT STATUS                                                                                                                                                                                                                                                                                                                     | PROPOSED IMPLEMENTATION                                                                               | TIME LINES |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------|
| <p>Many vocational students are receiving state and national recognition through the vocational student organizations. Many schools presently use the "Student Achievement Record" to give recognition to students who complete a program of study and to provide employers a list of the competencies a student has achieved.</p> | 4. Require remediation for students behind two or more years in reading and math in grades 9 and 10.  | FY 89-91   |
|                                                                                                                                                                                                                                                                                                                                    | 5. Modify existing curriculum to give counties more flexibility in the delivery of instruction.       | FY 89-91   |
|                                                                                                                                                                                                                                                                                                                                    | 6. Encourage articulation between vocational programs and community colleges.                         | FY 89-91   |
|                                                                                                                                                                                                                                                                                                                                    | 1. Implement a vocational completer "certification" testing program in basic and occupational skills. |            |
| <p>Approximately 30% of the vocational graduates continue their education beyond high school.</p>                                                                                                                                                                                                                                  | a. Develop occupational skills test and select a basic skills test and pilot certification program.   | FY 89      |
|                                                                                                                                                                                                                                                                                                                                    | b. Develop occupational skills test in three program areas in FY 90 and FY 91.                        | FY 90-91   |
|                                                                                                                                                                                                                                                                                                                                    | 1. Promote articulation agreements.                                                                   | FY 89-91   |
| <p>Academic and vocational teachers have little interaction. No efforts are currently underway to coordinate academic and vocational instruction. Courses in applied math and applied physics (Principles of Technology) have been developed. These courses are a substitute or option for students.</p>                           | 2. Encourage graduates to continue their education.                                                   | FY 89-91   |
|                                                                                                                                                                                                                                                                                                                                    | 3. Collect data and include in State Superintendent's Annual Report Card.                             | FY 89-91   |
|                                                                                                                                                                                                                                                                                                                                    | 1. Appoint a joint vocational/academic task force to:                                                 |            |
|                                                                                                                                                                                                                                                                                                                                    | a. Coordinate and improve articulation of vocational and academic instruction.                        | FY 89-91   |
|                                                                                                                                                                                                                                                                                                                                    | b. Develop guidelines and provide technical assistance to counties.                                   | FY 89-91   |
|                                                                                                                                                                                                                                                                                                                                    | c. Propose science and technology options.                                                            | FY 89      |

| CURRENT STATUS                                                                                                                                                                                                                                                                                                                                                                                                   | PROPOSED IMPLEMENTATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | TIME LINES                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| Potential dropouts who are behind in basic skills are being served in vocational programs. Remediation is a part of the instruction for these individuals. Some counties are already serving dropouts in vocational programs. These students are being reported as "post graduates." In addition, inschool and summer programs have been developed using JTPA funds. All of these programs have been successful. | <p>d. Identify and develop four applied courses from the college preparatory curriculum.</p> <p>1. Dropout prevention</p> <p>a. Appoint task force of vocational and academic personnel to identify counties with dropout rates above 25% and assist counties in the implementation of strategies and delivery systems that have the potential to reduce dropouts.</p> <p>b. Revise dropout reporting procedures.</p> <p>c. Require all approved vocational programs to have a vocational student organization as an integral part of the program.</p> <p>d. Pilot ABE program for inschool students.</p> | <p>FY 89-91<br/>FY 90<br/>FY 91</p> <p>FY 89</p> <p>FY 89</p> <p>FY 89</p> <p>FY 89</p> |
| ADULT EDUCATION                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                         |
| Little emphasis on adult education in "written" board policy.                                                                                                                                                                                                                                                                                                                                                    | Vocational-technical centers and other public schools must be available for the training and instruction of adults, both day and evening.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | FY 89                                                                                   |
| Thousands of unemployed, displaced workers need training.                                                                                                                                                                                                                                                                                                                                                        | Set goal of increasing adult vocational enrollments by 2,300 per year for the next 3 years.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                         |
| We are serving one-half the number of adults we should.                                                                                                                                                                                                                                                                                                                                                          | Redesign vocational curriculum/ programs to allow more access by secondary and adult students.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                         |

| CURRENT STATUS                                                                                                                                                          | PROPOSED IMPLEMENTATION                                                                                                                                                                                                                                           | TIME LINES                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Staffing of vocational centers for adult education is limited with only two centers indicating full-time coordinators for adult vocational programs.                    | <ol style="list-style-type: none"> <li>1. A full-time adult vocational coordinator for any center having more than ten adult vocational programs.</li> <li>2. A one-half time adult vocational coordinator for five or more adult vocational programs.</li> </ol> | FY 89<br>3 full time<br>5 half time<br><br>FY 90<br>6 full time<br>10 half time<br><br>FY 91<br>10 full time<br>15 half time |
| Adults and industry need higher level training than provided by traditional 11th-12th grade level programs.                                                             | 13th year ADVANCED LEVEL program for adults.                                                                                                                                                                                                                      | FY 89-91                                                                                                                     |
| Many unemployed adults do not have transportation                                                                                                                       | Free transportation on space-available basis for adults.                                                                                                                                                                                                          |                                                                                                                              |
| Many current vocational programs are not articulated with community college programs.                                                                                   | Fully articulated vocational programs granting college credit and transferability, grades 11-14. Every vocational/technical program and community college program in the state.                                                                                   |                                                                                                                              |
| Neither community colleges or vocational centers alone can serve the adults in need.                                                                                    | Vocational centers/programs to serve as community college component, branch, or satellite.                                                                                                                                                                        |                                                                                                                              |
| Adults need training and space is available in secondary programs, but county boards of education did not receive reimbursement under the State Aid Formula for adults. | Change WV Code 18-9-A-1 to receive reimbursement for adults in programs with secondary students.                                                                                                                                                                  | FY 89-91                                                                                                                     |
| Many adults are available on a part-time basis only.                                                                                                                    | Divide vocational program into six 1-hour blocks per day. (See Attachment I.)                                                                                                                                                                                     |                                                                                                                              |
| Current practice of funding full-time adult preparatory programs is not cost efficient and most adults are only available on a part-time basis.                         | <ol style="list-style-type: none"> <li>1. Replace full-time adult preparatory program with more cost efficient part-time courses of study. (Grandfathering present programs during transition.)</li> </ol>                                                        |                                                                                                                              |

| CURRENT STATUS | PROPOSED IMPLEMENTATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | TIME LINES |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
|                | <p>2. Three priority levels of funding programs.</p> <p>a. Those courses leading to completion of the fully articulated 11-14 program, i.e., programs that terminate with the 13th year or community college associate degree (14th year). These courses as adult will receive the highest priority for funding.</p> <p>b. Those courses offered independently of any continuing education program and not leading to any specific certificate or degree. Requests for these courses will receive a number two priority.</p> <p>c. Those courses of an avocational nature, non-occupational. These courses will receive the lowest priority of funding.</p> |            |

#### MODERNIZING VOCATIONAL PROGRAMS

|                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| There is a current annual investment of approximately \$1.7 million in state and federal funds directed toward modernizing and establishing new programs. | <p>1. Securing funds for modernization</p> <p>a. Review existing secondary and adult preparatory programs that have low enrollment, low placement, and low occupational demand. Those programs that do not meet standard funds should be re-directed for new programs or modernization of other existing programs.</p> <p>b. Redirect current equipment replacement and incentive funds.</p> <p>c. Submit an improvement package to the legislature for additional funds.</p> | FY 89-91 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|

| CURRENT STATUS                                                                        | PROPOSED IMPLEMENTATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | TIME LINES                                                                                        |
|---------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| <p>A science, math, and technology option is not available at vocational centers.</p> | <ol style="list-style-type: none"> <li>2. The state board of education establish priorities for modernization of existing programs and establishment of new programs.</li> <li>3. Part of the funds be allocated to counties on a formula basis, and the other part on a project competitive basis.</li> <li>4. Funds for modernization could be used for equipment, instructional materials, and--in some cases, with new programs--instructional salaries for one year.</li> <li>5. Strategies that could be utilized for modernizing equipment for vocational programs are:               <ol style="list-style-type: none"> <li>a. Develop a list of approvable major equipment through use of state technical committees.</li> <li>b. Consider state bid process for major equipment. Consider alternative ways for procurement of equipment such as: lease/purchase, equipment pools, cooperative purchasing with business, work site training; consider changing of state law to allow business and industry a tax break for donating equipment and materials.</li> </ol> </li> </ol> |                                                                                                   |
|                                                                                       | <p>A science, math, and technology program option should be established at a vocational center on a demonstration basis.</p> <p>The science, math, and technology option should consist of a 3-period block of time during each of the last two years of high school. Students would complete two units each in advanced math, science, and technology.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <p>Establish option at a vocational center each year for the next 3 years, starting in FY 89.</p> |

| CURRENT STATUS                                                                                                                                                                                                                     | PROPOSED IMPLEMENTATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | TIME LINES                                                                                                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Technical committees have been established in areas of health occupations, metal trades, and employability skills.</p>                                                                                                          | <p>Students should have access to labs in at least five areas such as: computer systems, telecommunications, graphics and computer drafting, electronics technology, fiber optics, principles of technology, automated manufacturing, robotics, and instrumentation and controls.</p> <p>Technical committees should be established for all areas of vocational education such as building construction, electronics, automotive mechanics, marketing education, business education, etc.</p> <p>Each technical committee should consist of 5 to 15 members and would include representatives of organized labor (where applicable), professional and trade organizations, and employers from the industry or occupation for which the committee is established.</p> | <p>FY 89 - five technical committees to be established, with 5 additional ones each year until all major areas have been covered.</p>                |
| <p>Vocational programs are monitored each year, based on minimum enrollment standards which are 10 students per class. All vocational programs are evaluated as part of the county accreditation review once every four years.</p> | <p>Each year, a program review would be conducted to determine if the standards have been met regarding the 60% placement rate of students employed, continuing their education, or in the armed forces. A minimum of 15 students should be enrolled per class, with weighting given to those students who are classified as disadvantaged or handicapped and for students that are required clinical experience or supervised occupational experience programs.</p> <p>Programs failing to meet the minimum enrollment and placement standards will give consideration to surveys from business and industry, parents, and students. If the data indicates the program is no longer needed, the program will be discontinued.</p>                                   | <p>FY 89 - begin the monitoring of programs and continue onsite vocational evaluations.</p> <p>FY 89 - accredit 5 automotive mechanics programs.</p> |

| CURRENT STATUS                                                                                                                                                                                                                                                                                                                  | PROPOSED IMPLEMENTATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | TIME LINES      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| <p>Approximately \$1.2 million in federal funds are utilized for academically and disadvantaged students. However, priorities are not presently given to improving the basic skills of the disadvantaged students. However, priorities are not presently given to improving the basic skills of the disadvantaged students.</p> | <p>Counties should be encouraged and assisted in getting programs accredited through nationally-recognized accrediting agencies.</p> <p>Once the students have been identified, the following are examples of the types of services or activities that would be approvable for funding.</p> <ol style="list-style-type: none"> <li>1. Assessment of the student's academic ability and achievement levels.</li> <li>2. Modification and adaptation of curriculum and materials.</li> <li>3. Remedial services designed to assist students in regular vocational programs.</li> <li>4. Staff development required to prepare personnel to work with disadvantaged students.</li> <li>5. Additional staff that may be required.</li> <li>6. Purchasing of equipment.</li> </ol> <p>Funds will be allocated to counties on a formula basis with counties submitting an application to be approved by the department of education.</p> | <p>FY 89-91</p> |

#### PERSONNEL DEVELOPMENT

|                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                 |              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <p>Current policy provides for initial certification for the vocational permit in one of three ways:</p> <ol style="list-style-type: none"> <li>1. High school diploma and six years of occupational experience</li> <li>2. Occupational competency test and one year of occupational</li> <li>3. Bachelors Degree and three years of occupational experience.</li> </ol> | <p>Base initial certification of full-time non-degree teachers on:</p> <ol style="list-style-type: none"> <li>1. test scores in occupational competency area and pre-professional skills, and</li> <li>2. three years of successful work experience.</li> </ol> | <p>FY 91</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|

| CURRENT STATUS                                                                                                                                                                    | PROPOSED IMPLEMENTATION                                                                                                                                                                                 | TIME LINES |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| Current vocational certificate program is weak in terms of academic foundations and occupational/technical knowledge.                                                             | Revise the vocational certificate program to:<br>1. strengthen teachers' academic foundations and occupational/technical knowledge, and<br>2. encourage completion of teacher education degree program. | FY 91      |
| No study conducted.                                                                                                                                                               | Conduct and publish an annual supply and demand study of vocational education teachers.                                                                                                                 | FY 89-91   |
| No formal recruitment program in existence.                                                                                                                                       | Implement a marketing program to recruit prospective vocational-technical teachers.                                                                                                                     | FY 89-91   |
| Approved education personnel preparation programs include: Ag. 1; Bus.Ed. 10; Cons. & Homemkg. 6; Dist. Ed. 1; Ind. Arts/Tech. 3; Occup. Home Ec. 1; Prevoc. Exp. 1; Voc. Adm. 1. | Offer undergraduate and graduate programs in vocational-technical education.                                                                                                                            | FY 89-91   |
| Redesign/refocus of vocational education may require changes in current teacher education and administration programs.                                                            | Appoint a task force to examine pre-service and inservice programs relative to changing expectations of vocational-technical teachers.                                                                  | FY 89      |
| Policy 5500, Sec. 4.2, requires all professional staff to participate in at least 12 clock hours of job-related staff development each year.                                      | Encourage math, science, and English teachers in secondary schools to complete inservice activities on using less abstract, more applied teaching approaches.                                           | FY 89-91   |
| Policy 5500, Sec. 5.9, states that a personal professional development plan may be developed based on employee evaluation data.                                                   | Encourage local school systems to assess needs of vocational teachers and develop a 3-year professional development plan for each teacher.                                                              |            |
| No such task force currently in existence.                                                                                                                                        | Establish a task force of teachers, teacher educators, and administrators to develop a formal process for the local professional development needs assessment.                                          | FY 89      |

| CURRENT STATUS                                                                                                                                                                 | PROPOSED IMPLEMENTATION                                                                                                                                                                                                       | TIME LINES |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| No such requirement.                                                                                                                                                           | Encourage each vocational teacher to complete appropriate inservice education based upon the locally developed individual professional development plan.                                                                      | FY 91      |
| Policy 5202, Sec. 8C, requires all teachers not holding a permanent certificate to complete six semester hours of college coursework every five years for certificate renewal. | Encourage all vocational education teachers to complete appropriate technical update to remain current in their occupational area.                                                                                            | FY 89-91   |
| No current reference in law or policy regarding use of CEUs for recertification and/or salary advancement.                                                                     | Permit use of six Continuing Education Units (10 clock hours = 1 CEU) of technical update for recertification and salary advancement (all vocational teachers).                                                               | FY 90      |
| Summer institutes and other inservice activities are offered but few focus on teaching methods relative to basic skills of teachers or students.                               | Develop a series of workshops, seminars, or courses that emphasize teaching methods for reinforcing basic competencies through the vocational curriculum.                                                                     | FY 89      |
| No formal, systematic delivery model currently exists for inservice education activities. Most activities are delivered using traditional approaches.                          | Appoint a task force in bureau of vocational, technical and adult education to develop a comprehensive delivery model of personnel development activities for vocational teachers, utilizing the most appropriate technology. | FY 89-91   |
| Redesign/refocus of vocational education will impact greatly upon needs of local education agencies regarding personnel development.                                           | Assist local education agencies in personnel development efforts related to redesigned/refocused program improvement initiatives.                                                                                             | FY 89-91   |

## IMPLEMENTATION PLAN

### CAREER ORIENTATION

#### A. Recommendations

To address earlier in the educational experience the basic skill deficiencies of students, to provide students with different approaches to learning and to help at-risk students in school, the West Virginia Board of Education should evaluate and redesign vocational courses taught in grades 7 through 10 into a comprehensive and well-defined occupational orientation program, which establishes common goals for all occupational orientation courses.

The state board of education should require all local systems to provide, by September of 1991, student access to occupational orientation courses from two vocational discipline areas in grades 7 and 8.

The state board of education should require local systems to assist all students in developing before or during the 9th grade, a four-year educational plan that will meet the needs of each individual student and prepare them for employment, further education, or both. The plan should be revised and updated annually.

The basic competency deficiencies of some students enrolling in vocational programs at the 10th and 11th grades are so great that the task of catching up is impossible. Therefore, the state board of education should direct that local systems begin their efforts earlier in a student's career to address the basic competency deficiencies of students.

#### Current Status

Developmental guidance is available to students in grades 5-8. No time requirements are indicated. Implementation ranges from very short-term activities in a regular academic class at each grade level to 12% time for some students in a separate class.

Unified arts, industrial arts, and/or consumer and homemaking are offered as electives in some schools.

Prevocational exploration is an option on a very limited basis.

#### Recommendation for Implementation

The state board of education should revise Policy 2510 with regard to developmental guidance and redesign and expand student participation in a comprehensive and articulated program of career orientation, exploration, and "living" skills development in grades 7 and 8.

#### Enabling Steps

1. Developmental guidance should be a nine-week required class for all students in the 7th grade and in the 8th grade. Counseling services

should be available to help students and assist teachers. Developmental guidance teachers could be counselors or vocational or academic teachers or a team of teachers and counselors who have participated in a two-week inservice workshop to help them conduct the program.

The program would have instructional categories of:

- a. Interpersonal skill development
- b. Educational and career assessment and self-understanding
- c. Career, personal, social and academic development
- d. Educational and career decision-making (including occupational information)

By the end of the 8th grade, each student will develop a four-year educational plan which will involve parents and be updated annually. Each student's interests and aptitudes will be assessed and an information sheet developed for each vocational program. The information sheet would identify such things as:

- \* Suggested academic and related vocational courses that students should take at each grade level
  - \* Articulation plans developed with postsecondary schools in the given area of concentration
  - \* Requirements for entrance into vocational concentration courses
  - \* Employment opportunities available to graduates
  - \* Ways the program can enhance further education beyond high school
  - \* Requirements for completion of the vocational program
2. Students in grades 7 and 8 will be required to participate in a nine-week exploratory course in two vocational discipline areas over the two-year span. They shall have access to two other nine-week courses in at least two vocational discipline areas each year (a minimum of four nine-week courses) for the purposes of exploration, development of living skills, employability skills, and basic knowledge in career and technology concepts. The courses will be organized on a nine-week basis and include common goals to assist students in learning through applied activities; learning those basic and academic competencies needed to succeed in a secondary vocational program; exploring career and educational options and developing a tentative career and education plan for high school; acquiring employability skills; acquiring living skills; acquiring a knowledge of basic technological concepts; and acquiring selected career information. Coordinated instructional activities will be provided between academic and exploration teachers for students who are two or more grade levels behind or otherwise need indepth remediation in

basic math and/or communication skills. Assessment of these students should occur at each grade level with remediation provided outside the exploration classroom. These courses should reflect modern communication, scientific, and technical concepts that underlie the home, community, and workplace. An outline of some suggested program options are as follows:

|                                                                                                                                                                                                                                                      | <u>Grade</u> | <u>Length in Weeks</u> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------------------|
| Introductory Business and Marketing Technology                                                                                                                                                                                                       |              |                        |
| Computer Literacy                                                                                                                                                                                                                                    | 7th          | 9                      |
| Introduction to Business and Marketing                                                                                                                                                                                                               | 8th          | 9                      |
| Introductory Technology Education                                                                                                                                                                                                                    |              |                        |
| Exploring Technology                                                                                                                                                                                                                                 | 7th          | 9                      |
| Understanding and Using Technology                                                                                                                                                                                                                   | 8th          | 9                      |
| Introductory Health Education                                                                                                                                                                                                                        |              |                        |
| Exploring Health Careers I                                                                                                                                                                                                                           | 7th          | 9                      |
| Health Education Technology                                                                                                                                                                                                                          | 8th          | 9                      |
| Introductory Consumer and Home Economics                                                                                                                                                                                                             |              |                        |
| BASE 7                                                                                                                                                                                                                                               | 7th          | 9                      |
| BASE 8                                                                                                                                                                                                                                               | 8th          | 9                      |
| Introductory Environmental and Agricultural Technology                                                                                                                                                                                               |              |                        |
| Exploring the Environment I                                                                                                                                                                                                                          | 7th          | 9                      |
| Exploring the Environment II                                                                                                                                                                                                                         | 8th          | 9                      |
| 3. Approved career exploration programs as they currently exist in grades 7-10 may be continued as an option. Students who participate in this program at the 7th or 8th grade would be exempt from the programs in numbers 1 and 2 in this outline. |              |                        |
| 4. Home/school counselors must be actively involved in this program. They will be required to participate in a two-week inservice workshop designed to assist them in providing help to students on the following topics:                            |              |                        |
| * Changing requirements in the workplace                                                                                                                                                                                                             |              |                        |
| * Contemporary concepts and goals of secondary vocational education                                                                                                                                                                                  |              |                        |
| * New standards and expectations for vocational graduates                                                                                                                                                                                            |              |                        |
| * The need for coherence in course selection                                                                                                                                                                                                         |              |                        |
| * The benefits that all students can gain from secondary vocational education                                                                                                                                                                        |              |                        |

- \* Pre-technical programs and applied academic courses
- \* Prerequisites for entering a vocational concentration
- \* Placement rates of secondary vocational graduates in employment and further education
- \* Awarding academic credit through vocational courses
- \* Roles of the general high school and the vocational center
- \* Articulation between secondary and postsecondary programs
- \* Student assessment for career decision making

#### Estimated Costs

##### 1. Developmental Guidance

In FY-87, there were 53,094 7th and 8th graders at 273 sites in West Virginia schools. It would require 91 full-time equivalent (FTE) instructors to provide a nine-week class in each of the 7th and 8th grades for all students. (An FTE is computed as six periods of a 7-period day.)

| <u>Estimated Costs</u>                          | <u>FY 89<br/>50%</u> | <u>FY 90<br/>75%</u> | <u>FY 91<br/>100%</u> |
|-------------------------------------------------|----------------------|----------------------|-----------------------|
| \$1,000/site for materials in initial year      | \$ 136,000           | \$ 69,000            | \$ 68,000             |
| \$500/site for materials each succeeding year   |                      | 68,000               | 102,500               |
| 91 FTE instructors @ \$25,000 each initial year | 1,125,000            | 1,745,000            | 2,388,000             |
| 180 counselors @ \$27,000 each initial year     | <u>2,430,000</u>     | <u>3,580,000</u>     | <u>4,930,000</u>      |
| Total                                           | \$3,691,000          | \$5,462,000          | \$7,488,500           |

#### Current Expenditures

|                            |                  |                  |                  |
|----------------------------|------------------|------------------|------------------|
| 34 FTE instructors - FY 89 |                  |                  |                  |
| 18 FTE instructors - FY 90 |                  |                  |                  |
| 18 FTE instructors - FY 91 |                  |                  |                  |
| @ \$25,000 each            | \$ 850,000       | \$1,300,900      | \$1,750,000      |
| 68 counselors - FY 89      |                  |                  |                  |
| 31 counselors - FY 90      |                  |                  |                  |
| 31 counselors - FY 91      |                  |                  |                  |
| @ \$27,000 each            | <u>1,836,000</u> | <u>2,973,000</u> | <u>3,510,000</u> |
| Total                      | \$2,686,000      | \$3,973,000      | \$5,260,000      |
| <u>Additional Costs</u>    | \$1,005,000      | \$1,769,000      | \$2,228,500      |

2. Introductory Technology Exploration

It will require 200 FTE instructors to implement the proposed program. There are currently 202 home economics teachers, 140 industrial arts teachers, 8 FTE business teachers, and 10-1/2 FTE vocational agriculture teachers working with 7th and 8th grade students. Additional sites and teachers needed are 70 in home economics, 133 in industrial technology, and 51 in other areas.

| <u>Estimated Costs</u>                        | <u>FY 89</u><br><u>0%</u> | <u>FY 90</u><br><u>50%</u> | <u>FY 91</u><br><u>100%</u> |
|-----------------------------------------------|---------------------------|----------------------------|-----------------------------|
| \$1,000/site for materials in initial year    | \$ 0                      | \$ 137,000                 | \$ 136,000                  |
| \$500/site for materials each succeeding year |                           |                            | 68,500                      |
| 200 FTE teachers at \$25,000 each             | 0                         | 2,500,000                  | 5,100,000                   |
| 254 additional program labs at \$25,000 each  | 0                         | 3,17,000                   | 3,175,000                   |
| Total                                         | \$ 0                      | \$5,812,000                | \$8,479,500                 |

Current Expenditures

|                          |   |           |           |
|--------------------------|---|-----------|-----------|
| 100 FTE teachers - FY 90 |   |           |           |
| 20 FTE teachers - FY 91  |   |           |           |
| @ \$25,000 each          | 0 | 2,500,000 | 3,000,000 |
| <u>Additional Costs</u>  | 0 | 3,312,000 | 5,479,500 |

3. Existing Career Exploration

Eighty programs are currently funded, with a cost of \$250,000 in vocational education funds. This program averages 3-1/2 persons or a total of 47 FTE instructors and counselors.

Estimated Costs

|                                         |               |
|-----------------------------------------|---------------|
| 47 FTE persons @ \$26,000 each          | \$1,222,000   |
| \$500 at each of 80 sites for materials | <u>40,000</u> |
| Total                                   | \$1,262,000   |

Current Expenditures \$1,262,000

Additional Costs 0

## SECONDARY VOCATIONAL EDUCATION

### A. Recommendation

The state board of education should redesign and expand programs to improve student participation in a comprehensive and articulated program of career foundations and "living" skills development in grades 9 and 10.

#### Current Status

Students have limited access to semester-length courses in technology (industrial arts), business, health occupations, career exploration, occupational home economics, marketing, and vocational agriculture education. Under West Virginia Board of Education Policy 2510, STEPS is a required offering in consumer and homemaking education. Common goals for the existing courses in grades 9 and 10 have not been established.

#### Proposed Implementation Plans

Related Vocational/Foundation Courses -- Existing curriculum should be reorganized on a semester basis and new semester-length courses developed in at least three vocational discipline areas for the purpose of improving career foundations, living skills, employability skills, adaptation to changing technology, and educational and career decision making. Common student goals will be included in each of the semester-length courses. As the curriculum is reorganized or developed, common goals will allow students enrolled to (1) learn through applied activities; (2) learn those basic and academic skills needed to succeed in an area of vocational concentration; (3) explore career and educational options; (4) improve decision making and revise their high school plan on an annual basis; (5) improve employability skills; (6) improve living skills; (7) improve knowledge and skills for adaptation to changing technology; and (8) acquire basic vocational knowledges and skills common to several occupations or clusters of occupations. This activity requires that semester-length courses with common goals be reorganized and developed in areas such as keyboarding, computer literacy, introduction to tools and materials, STEPS, career exploration, technology education, introduction to business, introduction to technical occupations, science and technology in agriculture, renewal resources, and introduction to the health occupations.

Technology Education in Grades 9 and 10 -- Implement technology education (industrial arts) in grades 9 and 10. Under this discipline area, introduction to technology would be offered in grade 9 and specialized courses would be offered in grade 10. In grade 9, the curriculum will be designed around manufacturing, communications, transportation, and construction.

County boards of education should have the option to determine which course options from at least three discipline areas can be implemented in grades 9 and 10 based on facility, equipment, and teacher needs.

### Time Lines

Development and Reorganization of Curriculum -- Three courses from different discipline areas with common goals for students in grades 9 and 10 will be developed or reorganized during each of the next three years.

Technology Education -- An appropriation will be requested from the legislature to implement this activity.

### Estimated Cost

| <u>Item</u>                  | <u>FY 89</u>   | <u>FY 90</u>   | <u>FY 91</u>   | <u>Funding</u> |
|------------------------------|----------------|----------------|----------------|----------------|
| Increased Access             | \$ 15,000      | \$ 15,000      | \$ 15,000      | Redirect       |
| Articulation of Basic Skills | Included above | Included above | Included above |                |
| Four-year Educational Plan   | No cost        | No cost        | No cost        |                |
| Technology Education         |                |                |                |                |
| New Programs                 | 1,003,332      | 1,003,332      | 1,003,332      | Additional     |
| Existing Programs            | 390,000        | 390,000        | 390,000        | Additional     |

### Policy Needed

1. Give vocational agriculture teachers an endorsement to teach introduction to tools and materials, science and technology in agriculture, renewable resources, and other special interest courses.
2. Revise West Virginia Board of Education Policy 2510 to require that related vocational/foundation semester courses be available to students in grades 9 and 10 from at least three discipline areas.
3. Develop a policy which requires or strongly encourages cooperation between vocational and academic teachers in grades 9 and 10 to identify the basic skills needed and use applied methods in the vocational and academic classroom to teach basic skills.
4. Revise West Virginia Board of Education Policy 2510 to require that technology education be required in Phase I. This policy is needed if funds can be obtained for teacher, facilities, and equipment.

### B. Recommendations

Common and higher expectations for vocational completers should be established. In order to achieve common and higher expectations, students should complete (1) four units in an area of vocational concentration; (2) two units in applied academic courses; (3) three units in math for low-achieving students; (4) two units of related vocational/foundation courses; and (5) advanced related academic courses.

Students not enrolled in vocational education should be required to complete beyond the requirements for graduation four units in higher academic courses or choose a subject field of in-depth study of at least four units.

#### Current Status

Programs in grades 11 and 12 are normally taught in 3-hour block time segments. The term "vocational completer" is not defined. There is no requirement for students two or more grade levels behind in math to be provided remediation. Access to applied courses is limited and there are no requirements to take advanced related academic courses.

#### Proposed Implementation Plans

Block-Time Instruction -- The existing 3-hour block time segments should be separated and sequenced into six-week, nine-week, one-semester, and one-year courses. This will provide counties an optional instructional delivery system.

Vocational Completer -- Define "vocational completer" for programs more than one year in length as a student who has a minimum of four units in a vocational concentration area during grades 9, 10, 11, and 12.

Define "vocational completer" for programs one year in length as a student who has a minimum of three units in a vocational concentration area during grades 11 and/or 12.

Scope and Sequence -- Develop a four-year educational plan for every student. Establish a scope and sequence (see Attachment I to secondary) that makes provisions for remediation in math and reading, graduation requirements, three or four units in a vocational concentration area, two units of related vocational/foundation courses, and two units of applied math and communications or two units in advanced related academic courses for students who have the ability to succeed. The four-year educational plan should be based on assessment and the scope and sequence to be a vocational completer. Extend this scope and sequence in cooperation with community colleges and community college components to allow some students to continue their education into the 13th and 14th year.

Non-Vocational Students -- Require students who are not enrolled in vocational education to complete, beyond the graduation requirements, four units in higher academic courses or choose a subject field for in-depth study of at least four units.

General Curriculum -- The general curriculum that allows students to take those courses required for graduation and then select additional courses without set goals should be eliminated.

Elimination of this curriculum requires students to select a program of studies in (1) college preparatory, (2) college preparatory/vocational, (3) vocational, (4) higher academic courses of at least four units, or (5) a subject field for in-depth study of at least four units.

### Time Lines

A scope and sequence in at least five areas of vocational concentration will be developed annually for the next three years, using a technical committee. The technical committee will be made up of representatives of business and industry, vocational directors, vocational and academic teachers, counselors, and community college representatives.

### Estimated Cost

| <u>Item</u>                             | <u>FY 89</u>                    | <u>FY 90</u> | <u>FY 91</u> | <u>Funding</u> |
|-----------------------------------------|---------------------------------|--------------|--------------|----------------|
| Defining Program Completer              | No cost                         | No cost      | No cost      |                |
| Higher Expectations Vocational Students | No cost                         | No cost      | No cost      |                |
| Non-Vocational                          | No cost                         | No cost      | No cost      |                |
| Remediation Grades 9 and 10             | No cost to Vocational Education |              |              |                |
| Modification of Curriculum              | \$ 25,000                       | \$ 25,000    | \$ 25,000    | Additional     |
| Articulation with Community Colleges    | No cost                         | No cost      | No cost      |                |

### Policy Needed

1. Revision of West Virginia Board of Education Policy 2510 to require remedial math and reading in grades 9 and 10.
2. Revise the graduation requirements to define and implement a planned educational program for students. A planned educational program for students will emphasize college preparatory, college preparatory/vocational, vocational, program of study of at least four advanced academic subjects, and program of study of at least four advanced units in a subject field.
3. Policy defining a program completer.
4. Policy requiring a 7-period school day.
5. Policy requiring assessment of all students prior to the 9th grade in order to implement the four-year planned educational program for each student.
6. A policy that considers the number of handicapped students placed in a vocational program unless appropriate support services are provided.
7. A policy which allows remedial math to count as one of the units required for graduation.

### C. Recommendations

The West Virginia Board of Education should establish an optional certification program for vocational students.

#### Current Status

Certification Program -- It is proposed that a certification program be implemented. This certification program will be based on criterion-referenced tests in the vocational concentration areas and a statewide basic skills test. Students will have the option to choose to take the tests for certification.

Currently, program guides are being developed based on the approved learning outcomes. In addition, criterion-referenced test items are completed or under development in 30 occupational areas through V-TECS. When these test items are developed and validated, test items can be randomly selected to determine student achievement in each of the vocational concentration areas. The student results can be normed for West Virginia and cutoff scores for certification established.

Basic Skills Test -- A basic skills test will be identified, obtained, and administered to those students who want certification in a vocational concentration area. The student results can be normed for West Virginia or national norms adopted and cutoff scores for certification established.

#### Time Lines

Establish procedures, develop one criterion-referenced test, identify a basic skills test, and pilot a certification program to establish cutoff scores in one vocational certification area during the 1988-89 school year.

During the 1989-90 school year, develop three criterion-referenced tests, establish cutoff scores, administer tests, and award certification to students who pass the two tests.

During the 1990-91 school year, develop three criterion-referenced tests, establish cutoff scores, administer tests, and award certification to students who pass the two tests.

#### Estimated Costs

| <u>Item</u>                         | <u>FY 89</u> | <u>FY 90</u> | <u>FY 91</u> | <u>Funding</u> |
|-------------------------------------|--------------|--------------|--------------|----------------|
| Pilot "Certification" Program       | \$ 80,000    | None         | None         | Additional     |
| Additional "Certification" Programs | None         | \$ 140,000   | \$ 140,000   | Additional     |

#### Policy Needed

None. However, the West Virginia Board of Education should go on record to encourage and support a vocational certification program in West

Virginia based on criterion-referenced tests and a basic skills test that allows students to decide whether they want to take the tests for certification.

D. Recommendation

The West Virginia Board of Education set a goal that, by 1995, at least 40% of secondary vocational graduates will continue their education beyond high school.

Current Status

Approximately 30% of the vocational graduates continue their education beyond high school.

Proposed Implementation Plan

Vocational teachers, counselors, and administrators encourage and assist vocational graduates to consider the advantages of pursuing further education beyond high school.

The State Superintendent's Annual Report Card list, by county, the percent of vocational graduates who continue their education beyond high school.

Area vocational schools continue to develop and implement articulation agreements with community colleges and community college components of four-year colleges and encourage vocational graduates to take advantage of the credit awarded by these institutions, if they continue their education beyond high school.

Estimated Cost

None

Time Lines

Annually submit data for the State Superintendent's Report Card to determine if the number of vocational graduates continuing their education beyond high school is increasing.

Policy Needed

None

E. Recommendations

The West Virginia Board of Education direct the state superintendent of schools to establish a joint vocational and academic task force to improve basic academic instruction in vocational courses and assist local school districts in planning and implementing academic instruction. The intent is to redesign and refocus vocational and academic skills so that vocational teachers can reinforce basic and academic skills and academic teachers can develop and incorporate applied learning approaches into instruction.

The West Virginia Board of Education direct that selected general academic courses be revised to place greater emphasis on higher expectations, more rigorous content, applied teaching methods, and coordination of instruction between vocational and academic teachers. Four college preparatory courses should be identified and the content taught by academic teachers. The courses proposed are: applied communications, applied chemistry/biology, applied mathematics, and applied physics. These courses would meet the requirements in the college preparatory program of study and are not to be a substitute or option for existing college preparatory courses.

#### Current Status

Academic and vocational teachers have little interaction. No efforts are currently underway to coordinate academic and vocational instruction. Courses in applied math and applied physics (Principles of Technology) have been developed. These courses are a substitute or option for students.

#### Proposed Implementation Plan

Joint Vocational/Academic Task Force -- The West Virginia Board of Education direct the state superintendent of schools to appoint a joint vocational and academic task force. The purpose of the task force will be to improve academic instruction in vocational courses and assist local school systems in planning and implementing academic instruction in vocational courses. This task force will develop guidelines, provide inservice, and assist vocational and academic teachers in the counties to coordinate instruction.

The joint vocational/academic task force will have the added responsibility of proposing science and technology programs to the West Virginia Board of Education. The delivery of these programs may be through magnet schools, technology, or other alternate means.

Applied College Preparatory Courses -- Upon the recommendation of the state superintendent of schools, the West Virginia Board of Education require that the content of four college preparatory courses be taught in an applied manner and that these courses do not substitute for existing courses or provide another option to college preparatory students.

When the four college preparatory courses are identified, that a technical committee be established for each college preparatory course. These technical committees will have the responsibility to identify applied activities that can be used by academic teachers. Membership on the committee will include related academic and vocational teachers, representatives from business and industry, and administrators.

#### Estimated Cost

| <u>Item</u>                       | <u>FY 89</u> | <u>FY 90</u> | <u>FY 91</u> | <u>Funding</u> |
|-----------------------------------|--------------|--------------|--------------|----------------|
| Development of<br>Applied Courses | \$ 40,000    | \$ 40,000    | \$ 40,000    | Additional     |

### Policy Needed

The West Virginia Board of Education should strongly encourage development and implementation of activities that promote cooperation and coordination between vocational and academic personnel.

### F. Recommendation

In addition to implementing an occupational orientation program focusing attention earlier on students with basic skills deficiencies, improving coordination of academic and vocational instruction, and improving career planning, the state board of education should focus special attention on and provide extra assistance to those local systems that have exceedingly high dropout rates.

### Current Status

Potential dropouts who are behind in basic skills are being served in vocational programs. Remediation is a part of the instruction for these individuals. Some counties are already serving dropouts in vocational programs. These students are being reported as "postgraduates." In addition, inschool and summer programs have been developed using JTPA funds. All of these programs have been successful.

### Proposed Implementation Plan

A task force be appointed by the state superintendent of schools. This task force be composed of vocational and academic personnel. The mission of the task force be to identify counties with dropout rates above 25% and assist counties in the implementation of strategies and delivery systems that have the potential to reduce dropouts.

Secondly, research indicates that students who belong to organizations and are actively involved are less likely to drop out of school. Vocational student organizations, now optional, should be required for every program.

Dropout reporting procedures be revised to show whether or not a dropout followed a four-year instructional plan or participated in a coordinated academic and vocational program.

Efforts be made to contact, within 30 days, every school dropout after they leave school and enroll them in adult or secondary vocational programs.

In addition, it is suggested that a pilot program be established which allows potential dropout students to enroll in vocational courses and at the same time provide academic instruction using the ABE model. This model provides the occupational skills needed for employment and the knowledge to graduate from high school, based on successfully passing the GED test. Students allowed to enroll in this delivery system be assessed. Students be at least two grade levels behind in reading and math, have a history of missing school for no excused reason, and have failed the majority of the subjects taken. If this pilot program is accepted, it is suggested that guidelines be established.

### Time Lines

The proposed plans can be implemented during the 1988-89 school year.

### Estimated Cost

To establish a task force, require integrated vocational student organizations, revise dropout reporting procedures, and implement a pilot program using ABE as the academic delivery model can be accomplished with existing resources.

### Policy Needed

1. A policy which requires or strongly encourages teachers in vocational programs to provide students access to a student organization.
2. A policy which allows an inschool pilot program to be established, using the ABE model for academic instruction, with students enrolled in a program in vocational education. Students will spend the entire day in vocational and ABE classes.
3. A policy that directs the reporting of dropouts to include whether the student had a four-year educational plan or participated in coordinated academic and vocational instruction.
4. A statement that encourages counties to contact dropouts within 30 days and enroll them in vocational and ABE instruction.

## ATTACHMENT I

### SCOPE AND SEQUENCE FOR SECONDARY THROUGH ASSOCIATE DEGREE

| 9th Grade                                                                                                                                                                                                                                                                                                                                 | 10th Grade                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>RELATED VOCATIONAL/FOUNDATION</b><br>Keyboarding<br>Computer Literacy<br>Introduction to Tools and Materials<br><b>STEPS</b><br>Career Exploration<br>Technology Education<br>Construction<br>Transportation<br>Communications<br>Manufacturing<br>Introduction to Business<br>Introduction to Technical and<br>Industrial Occupations | <b>RELATED VOCATIONAL/FOUNDATION</b><br>Keyboarding<br>Computer Literacy<br>Introduction to Tools and Materials<br>Consumer and Homemaking<br>Specialized Courses<br>Technology Education<br>Electricity/Electronics<br>Drafting<br>Construction<br>Communications<br>Transportation<br>Manufacturing<br>Introduction to Technical and<br>Industrial Occupations |
| <b>VOCATIONAL CONCENTRATION</b><br>Vocational Agriculture<br>Consumer and Homemaking<br>Occupational Home Economics                                                                                                                                                                                                                       | <b>VOCATIONAL CONCENTRATION</b><br>Vocational Agriculture<br>Business Education<br>Marketing Education<br>Consumer and Homemaking<br>Occupational Home Economics                                                                                                                                                                                                 |
| <b>REMEDIAL</b><br>Math<br>Reading                                                                                                                                                                                                                                                                                                        | <b>REMEDIAL</b><br>Math<br>Reading                                                                                                                                                                                                                                                                                                                               |
| <b>APPLIED</b><br>Math<br>Communications                                                                                                                                                                                                                                                                                                  | <b>APPLIED</b><br>Basic Math<br>Advanced Math<br>Communications<br>Principles of Technology                                                                                                                                                                                                                                                                      |
| <b>GRADUATION REQUIREMENTS</b>                                                                                                                                                                                                                                                                                                            | <b>GRADUATION REQUIREMENTS</b>                                                                                                                                                                                                                                                                                                                                   |
| 11th Grade                                                                                                                                                                                                                                                                                                                                | 12th Grade                                                                                                                                                                                                                                                                                                                                                       |
| <b>VOCATIONAL CONCENTRATION</b><br>Vocational Agriculture<br>Business Education<br>Marketing Education<br>Technical and Industrial Education<br>Consumer and Homemaking<br>Health Occupations Education<br>Pre-business, Science, and<br>Technology                                                                                       | <b>VOCATIONAL CONCENTRATION</b><br>Vocational Agriculture<br>Business Education<br>Marketing Education<br>Technical and Industrial Education<br>Consumer and Homemaking<br>Health Occupations Education<br>Occupational Home Economics<br>Pre-business, Science, and Technology                                                                                  |

RELATED VOCATIONAL/FOUNDATION

Adult Roles and Functions  
Consumer and Homemaking  
Specialized Courses  
Technology Education

RELATED VOCATIONAL/FOUNDATION

Adult Roles and Functions  
Consumer and Homemaking  
Specialized Courses  
Technology Education  
Diversified Cooperative Training

ADVANCED RELATED ACADEMICS

Math  
Science

ADVANCED RELATED ACADEMICS

Math  
Science

APPLIED

Principles of Technology  
Math  
Communications

APPLIED

Principles of Technology  
Math  
Communications

REMEDIAL

Math  
Reading

REMEDIAL

Math  
Reading

GRADUATION REQUIREMENTS

GRADUATION REQUIREMENTS

NOTES AND DEFINITIONS

1. Vocational concentration courses -- A program of study from vocational agriculture; marketing; occupational home economics; technical and industrial; health occupations; technology; pre-business, science and technology; or consumer and homemaking education leading to positive placement in the home, military, work force, or higher education.
2. Related vocational/foundation -- Elective courses offered to enrich and provide other skills useful in the area of concentration.
3. Remedial courses -- Courses offered in math, reading, and through Adult Basic Education to persons two or more grades behind in basic skills or wanting a GED. Remedial classes in grades 9 and 10 are the responsibility of general education.
4. Applied courses -- Courses that teach technical information in an activity setting.
5. Advanced related academic courses -- Advanced courses in math and science that may be related to the area of concentration or that may be used for college entrance.
6. Remedial and applied courses are substituted for applicable required courses for graduation.

## ADULT EDUCATION

### A. Recommendations

A state board of education policy should be established that clearly indicates the responsibility of vocational centers to serve the adult population, both day and evening.

#### Current Status

The state board of education has never established the policy that adults must have access to all vocational courses offered at vocational centers. The State of West Virginia urgently needs to fully utilize vocational centers to serve adult students. First, unemployment in West Virginia has exceeded the national average during the 1980s. In March of 1987, West Virginia's unemployment rate was 13%; the national rate was 6.5% (New York Times, April 5, 1987).

West Virginia Has a large number of persons needing adult vocational education. The following facts illustrate the need for expanding adult basic and vocational services.

In 1986, West Virginia had 343,020 economically disadvantaged persons, age 22 and over, representing 20.6% of the state's population.

In 1985, West Virginia had 50,640 dislocated workers.

In 1985, West Virginia had 50,192 displaced homemakers; 34,054 of these persons were economically disadvantaged.

In 1980, West Virginia had 33,286 adults who speak a language other than English.

In February of 1986, West Virginia had 97,414 persons unemployed.

In February 1986, West Virginia had 25,620 unemployed youth, age 16 to 21, representing 26.4% of the civilian labor force.

Source: State of West Virginia, Job Training Partnership Act, Planning Statistics, West Virginia Department of Employment Security, June, 1986.

If the resources of the area vocational centers were fully utilized for adults, another 3,500 to 4,000 full-time adults could be served. In addition, the institutional capacity already exists, with minimal investment, to enroll over 10,000 additional adults on a part-time basis with minimal investment.

The low participation rate of West Virginians in full-time postsecondary and adult vocational and technical education is due, in part, to adults not having convenient access to institutions providing such education opportunities. Regions served by community colleges have a participation rate of over 9 per 1,000 persons; those regions without a community college serve just over 4 per 1,000.

As compared to the national average, West Virginia has a high unemployment rate among its adult citizens; a growing mismatch between the education level and skills of adults; changing workplace demands and requirements; a low rate of women participating in the work force; and a low proportion of adults participating in postsecondary and adult vocational education. This data suggests that providing vocational education opportunities for adults is neither a state nor a local priority.

The investment in equipment and facilities is not being utilized to the fullest extent in vocational schools for full- and part-time adults. State and local policy structure has focused on vocational centers as institutions to serve primarily secondary youth.

The state board has never established the policy that adults must have access to all vocational courses offered at vocational centers.

#### Proposed Implementation Plan

It is proposed that the West Virginia Board of Education pass the following as official board policy. Whereas the public schools of West Virginia have a responsibility for utilizing public tax monies for the education of all West Virginians; whereas thousands of West Virginia's adult population are unemployed, underemployed, or displaced from unemployment; and whereas the State of West Virginia has invested over \$62 million in equipment in the state's vocational-technical centers; these centers must be made available, both day and evening, to adults in need of skill training.

#### Time Lines

January 1, 1988

#### Estimated Cost

None

#### Policy Needed

Whereas the public schools of West Virginia have a responsibility for utilizing public tax monies for the education of all West Virginians; whereas the thousands of West Virginia's adult population are unemployed, underemployed, or displaced from unemployment; and whereas the State of West Virginia has invested over \$62 million in equipment in the state's vocational-technical centers; these centers must be made available, both day and evening, to adults in need of skill training.

## B. Recommendations

To fully utilize the investment the state has already made in the vocational centers, the state board of education should set goals to increase the number of out-of-school youth and adults served by vocational centers on a full-time and part-time basis. An annual report on the progress being made in serving adults should be published by each vocational center.

As a minimum, each vocational center should have a full-time center director, high school coordinator, adult coordinator, and student services coordinator. Larger centers should have a coordinator for full-time adult programs and a full-time industrial coordinator and job placement specialist. Vocational centers with a full-time equivalent enrollment of 500 students should earn an additional coordinator for each increase of 150 full-time students.

### Current Status

Total enrollment in postsecondary vocational education has remained constant since 1981 (Table 13). Enrollment has declined in trade programs and increased only slightly in business education, health, and technical programs. Adult vocational enrollment declined from 1981 to 1986 due to a decrease in mining orientation programs and because adults have limited access to business, marketing, and technical programs.

TABLE 13

#### Comparison of Postsecondary and Adult Vocational Enrollment

|                             | Postsecondary           |        | Adult Preparatory |       |
|-----------------------------|-------------------------|--------|-------------------|-------|
|                             | FY 81                   | FY 86  | FY 81             | FY 86 |
| Agriculture                 | 210                     | 28     | 17                | 34    |
| Marketing Education         | 593                     | 301    | 421               | 806   |
| Health Occupations          | 1,381                   | 2,212  | 1,050             | 687   |
| Consumer and Homemaking     | 0                       | 0      | 1                 | 1     |
| Occupational Home Economics | 261                     | 225    | 45                | 48    |
| Office Occupations          | 4,133                   | 6,328  | 800               | 920   |
| Technical Education         | 3,409                   | 2,300  | 227               | 504   |
| Trade and Industry          | 1,141                   | 1,493  | 9,418*            | 3,247 |
| Special Programs            | <u>-Not Applicable-</u> |        | 51                | 190   |
| TOTALS                      | 11,128                  | 12,888 | 12,030            | 6,437 |

According to the 1986 information provided by the Board of Regents staff, senior colleges offering two-year postsecondary vocational programs serve less than 5 persons per 1,000 in their service area in certificate and two-year vocational-technical programs. The state's three community colleges serve just over 9 persons per 1,000 in their service area.

A comparison of the number of full-time adults in colleges and in local school systems, by college service areas, reveals that fewer than 5 persons per 1,000 are being served in the Glenville State College service area, compared to 19 persons per 1,000 in the Southern Community College region. Table 14 compares the range of persons being served in full-time adult and postsecondary vocational programs by college service area. The Southern College is the only region where full-time adult preparatory enrollment exceeds the national average of 16 per 1,000 population.

TABLE 14

Comparison of the Number of Persons Served in Full-time Adult and Postsecondary Vocational Programs by College Service Areas Per 1,000 Population

Number Served per 1,000 Population

|                               |    |
|-------------------------------|----|
| Southern WV Community College | 19 |
| Marshall University           | 14 |
| WV State/WV Tech              | 12 |
| WV Northern Community College | 10 |
| Parkersburg Community College | 10 |
| Fairmont State College        | 9  |
| Shepherd College              | 9  |
| Bluefield State College       | 8  |
| Potomac State College         | 7  |
| Glenville State College       | 5  |

Current Utilization of Area Vocational Centers for Adults:

Through adult vocational programs, West Virginia served 44,876 full- and part-time adults or 22 persons per 1,000 population in FY 86. In comparison, Oklahoma's vocational system, which is similar to West Virginia's, served 128,000 adults or 45 persons per 1,000 population. Both of these states seek to utilize area vocational centers in serving adults and secondary youth. Yet, West Virginia has a more limited postsecondary vocational program than Oklahoma does.

In West Virginia, approximately 20,000 secondary youth, or 10,000 full-time enrollment equivalent, are enrolled in vocational centers. The number of adults enrolled full-time is less than 3,000. By contrast, 40% of the full-time capacity of the vocational centers in Oklahoma are being used for adults, as compared to only 23% in West Virginia.

Proposed Implementation Plan

The recommendation of the redesign and refocus study for the goal of having 30% of the total vocational enrollment be adults and the

accompanying recommendations for additional staffing would cost over \$3 million at a conservative estimate. Therefore, it is proposed that a less costly approach that would provide some forward momentum toward increasing the number of adults served would be advisable. This will result in an increase of adult enrollments by 2,300 persons per year for the next three years.

It is the feeling of the bureau of vocational, technical and adult education staff and local vocational directors surveyed that significant increases in adult enrollments could be brought about by providing a full-time adult vocational director in every building with ten or more full-time equivalent programs and a half-time adult vocational director in any facility having five or more full-time equivalent programs. It is believed that schools having fewer than five full-time equivalent programs can handle the load with existing staff.

#### Time Lines

|       |                                                                                    |
|-------|------------------------------------------------------------------------------------|
| FY 89 | 3 Full-time Adult Vocational Directors<br>5 Half-time Adult Vocational Directors   |
| FY 90 | 6 Full-time Adult Vocational Directors<br>10 Half-time Adult Vocational Directors  |
| FY 91 | 10 Full-time Adult Vocational Directors<br>15 Half-time Adult Vocational Directors |

#### Estimated Cost

|       |                                   |                |
|-------|-----------------------------------|----------------|
| FY 89 | 3 Full-time Directors @ \$30,000  | \$ 90,000      |
|       | 5 Half-time Directors @ \$15,000  | <u>75,000</u>  |
|       | TOTAL                             | \$165,000      |
| FY 90 | 6 Full-time Directors @ \$30,000  | \$180,000      |
|       | 10 Half-time Directors @ \$15,000 | <u>150,000</u> |
|       | TOTAL                             | \$330,000      |
| FY 91 | 10 Full-time Directors @ \$30,000 | \$300,000      |
|       | 15 Half-time Directors @ \$15,000 | <u>225,000</u> |
|       | TOTAL                             | \$525,000      |

#### Policy Needed

A quarterly report from vocational programs that illustrates the number of vacant training stations, by programs, at vocational centers; number of adults currently enrolled in programs; and steps being taken to fill the remaining vacant stations with adults.

A requirement that vocational centers admit/enroll adults on a quarterly basis at a minimum.

C. Recommendations for An Improved and Expanded Adult Vocational Education Program

The state board should authorize the department of education staff to work with local systems in redesigning programs in vocational centers into a planned 11th, 12th, and 13th-year program.

Current Status

The value of adult preparatory vocational education is questioned by potential enrollees due to the fact that credit for work is not fully articulated with the Associate Degree. Additionally, many adults perceive little difference between the high school vocational program and that offered for adults.

Proposed Implementation Plan

The 13th-year adult technical education program would consist of courses that meet the needs of adult learners who require advanced education for entry-level or continued employment as technicians in technological occupations. According to the Technician Education Directory, 1986:

Technicians function on research, production, or service teams as skilled assistants supporting professional scientists, engineers, and/or managers. Technicians are knowledgeable in the applied science, methods, and processes of the field, may work closely with the professional leaders, or may function remotely and with little supervision; and in many cases may direct the work of skilled or semi-skilled workers in the accomplishment of the team's work.

Therefore, technical education is a level of education that requires the adult learner to master, in addition to select "hands-on" skills, applied concepts and principles appropriate for technologies needed by technicians in the workplace. This level of training is necessary in West Virginia if we are to be competitive with other state and national employment markets in high tech industries. Neither the vocational nor high education systems in West Virginia are presently offering this particular technical level of training.

The 13th-year adult technical education program is an advanced level of education that builds upon the compliments the vocational programs offered at the secondary school level and present adult prevocational training in West Virginia. However, the adult learner would not necessarily need to complete the vocational secondary school program, and may be able to enroll directly into a technical specialty area based on previous educational and occupational experiences. The program would consist of three parts: Foundation Core, Technical Core, and Specialty Area.

The Foundation Core represents 10-20% of the program. A combination of foundation and capstone core competencies required in the secondary school

program make up the Foundation Core area for the 13th-year adult technical education program. Adults may complete the core requirements by satisfactorily completing self-study modules (open-entry/open-exit). In addition, adults may be given credit for previous educational and occupational experiences toward requirements of the 13th-year program.

The Technical Core represents 30-40% of the program. Units of instruction which make up courses consist of technical tasks in the occupational area of study. Fundamental concepts and principles in the occupational area taught in the secondary school program are among the technical core requirements. The adult learner, however, may "test-out" of the technical core competencies. This is especially important for the high school dropout who mastered some vocational competencies while in high school.

A Specialty Area is selected by the adult learner after demonstrating satisfactory competence in the foundation and technical core areas. The Specialty Area represents 50% of the total 13th-year adult technical education program. In addition, the adult learner must complete an "application project" in the Specialty Area. The project may be completed at the place of current employment, if appropriate and agreed to by the learner, instructor, and employer.

The credit and articulation requirements must be designed to enable the adult learner to progress from one level of the education system to the other with minimum cost, time, and duplication of effort. One unit of credit is equal to 30 clock hours of instruction with formal laboratory or out-of-class learning activities. A total of 30-35 units of credit are required to complete the 13th-year adult technical education program and receive a Certificate of Applied Science in the occupational specialty. Persons who complete the program may receive college credit toward the Associate of Applied Science Degree through articulation agreements between vocational-technical centers and colleges/universities. (See Attachment II to Adult.)

#### Time Lines

FY 89      Development of fully-articulated programs with West Virginia Board of Regents

Curriculum development to divide five vocational programs into the six 1-hour blocks per day, allowing greater access by adults and secondary students.

Articulation conferences with the Board of Regents for development of "branch offerings" in vocational-technical centers.

FY 90      Implementation of fully articulated program 11-14 in five programmatic areas.

Curriculum development on five additional programs, dividing them into six 1-hour blocks.

FY 91      Full statewide implementation of the articulated 11-14 program. Full statewide implementation of six 1-hour per day blocks of instruction.

#### Estimated Cost

Staff time of bureau of vocational, technical and adult education and West Virginia Board of Regents

#### Policy Needed

Approval of 13th-year ADVANCED program

Policy calling for fully articulated programs with community colleges. (11th-14th grade)

Policy authorizing the development of community college components, branches, or satellites at vocational/technical centers

#### D. Recommendations for Redesigning and Refocusing Vocational Education

The state board should authorize the department of education to work with local systems in redesigning programs in vocational centers into a planned 11th, 12th, and 13th-year program.

#### Current Status

Thousands of West Virginians are underemployed, unemployed, and displaced from their employment and in desperate need of skill training and/or retraining. Slots or vacancies exist in secondary vocational programs for those adults to receive training; however, county school systems do not receive reimbursement for adults and thus there is little incentive to serve the adult population.

#### Proposed Implementation Plan

Revision of West Virginia Code 18-9-A-1 to allow counties to receive reimbursement for adults under the State Aid Formula would allow between 2,000 and 3,000 adults to gain access to the vocational system.

This action will modify the adult preparatory programs as presently taught, replacing them with more cost efficient part-time programs and redirection of monies into the 13th-year program. Present programs will be "grandfathered" while transitioned into part-time and 13th-year programs to meet adult needs.

Adult programs will have one of three outcomes, and funding will be based on their order of priority.

1. Those courses leading to completion of the fully-articulated 11-14 program, i.e., programs that terminate with a certificate for the 13th year or a community college associate degree (14th year). These courses as they compose the adult program will receive the highest priority for funding.

2. Those courses offered independently of any continuing education program and not leading to any specific certificate or degree. Requests for these courses will receive a number two priority, i.e., computer literacy.
3. Those courses of an avocational nature, non-occupational, i.e., Powder Puff Mechanics. These courses will receive the lowest priority for funding.

Thus, adults will be presented with a "market basket" approach to selecting just those courses they need to receive initial technical training; upgrade their present skills or take technical skills training for personal development. However, the local vocational program will receive a higher reimbursement rate per hour/class for those classes that lead to a certificate or degree.

#### Time Lines

|       |                                                             |
|-------|-------------------------------------------------------------|
| FY 89 | 1,000 adult students to be enrolled under State Aid Formula |
| FY 90 | 2,000 adult students to be enrolled under State Aid Formula |
| FY 91 | 3,000 adult students to be enrolled under State Aid Formula |

#### Estimated Cost

|       |                                        |
|-------|----------------------------------------|
| FY 89 | \$1,375,000 (55 teachers at \$25,000)  |
| FY 90 | \$2,750,000 (110 teachers at \$25,000) |
| FY 91 | \$4,150,000 (166 teachers at \$25,000) |

#### Policy Needed

Change in West Virginia Code 18-9-A-1 to allow counties to receive reimbursement for adults under the State Aid Formula.

ATTACHMENT II  
To Adult Education

SECONDARY AND ADULT TECHNICAL EDUCATION MODELS

CURRENT

ONE 6 OR 9-WEEK GRADING PERIOD

A.M. (3 HR.)      P.M. (3 HRS.)

11TH

12TH

ADULT PREP

|                                |  |
|--------------------------------|--|
|                                |  |
|                                |  |
|                                |  |
| COMMUNITY COLLEGE<br>AA DEGREE |  |

PROPOSED

ONE 6 OR 9-WEEK GRADING PERIOD

A.M.      P.M.      3 P.M. TO 6 P.M.      6 P.M. TO 9 P.M.

TECH ED I

TECH ED II

TECH ED III

TECH ED IV

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
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SECONDARY AND ADULT TECHNICAL EDUCATION  
PROPOSED  
1 DAY OF CLASSES - 9 OR 6 WEEKS GRADING PERIODS

|          | A. M.<br>↓                            |                                   |                                      | P. M.<br>↓                            |                                  |                                        | 3 TO 6 P. M.<br>↓                       |                                          | 6 TO 9 P. M.<br>↓             |                                    |
|----------|---------------------------------------|-----------------------------------|--------------------------------------|---------------------------------------|----------------------------------|----------------------------------------|-----------------------------------------|------------------------------------------|-------------------------------|------------------------------------|
| TECH I   | Principles of Technology<br>(45 Min.) | Fund. of Electronics<br>(45 Min.) | Elect. Math<br>(45 Min.)             | Principles of Technology<br>(45 Min.) | Tools & Test Equip.<br>(45 Min.) | Schematics and Blueprints<br>(45 Min.) | A.C. Circuits<br>(90 Min.)              | Principles of Technology<br>(45 Min.)    | D.C. Circuits<br>(90 Min.)    | Elect. Math<br>(45 Min.)           |
| TECH II  | (90 Min.)                             |                                   | Micro-Comp. Literacy<br>(45 Min.)    | Logic Circuits<br>(90 Min.)           |                                  | Human Relations<br>(45 Min.)           | Radio/TV Receiving Systems<br>(45 Min.) | Analog Circuits<br>(90 Min.)             | Micro-processors<br>(90 Min.) | Job Seeking & Keeping<br>(45 Min.) |
| TECH III | Video Equipment<br>(90 Min.)          | Personal Computer<br>(45 Min.)    | Advanced Studio Systems<br>(90 Min.) | Small Business Mgmt. I<br>(45 Min.)   |                                  | Small Business Mgmt. II<br>(45 Min.)   | CATV, CCTV MATV<br>(90 Min.)            | Electronic Security Systems<br>(90 Min.) | Elective<br>(45 Min.)         |                                    |
| TECH IV  |                                       |                                   |                                      | Courses to be offered by              |                                  |                                        | Community Colleges                      |                                          |                               |                                    |



Areas to be included in the 13th year are:

- 1) Biomedical Electronics
- 2) Legal Secretarial
- 3) Information Processing
- 4) Agri-Mechanics
- 5) Advanced Culinary Arts
- 6) CAD/CAM Applications
- 7) Quality Control Technical
- 8) Tool and Die Making
- 9) Electronic Communications
- 10) Automated Manufacturing
- 11) Automotive Technology
- 12) Advanced Welding Processes
- 13) Electro-Mechanical

THIRTEENTH-YEAR TECHNICAL PROGRAMS

|                            | <u>Number of<br/>Locations</u> | <u>Cost Per<br/>Location</u> | <u>Total</u> |
|----------------------------|--------------------------------|------------------------------|--------------|
| Bromedical Electronics     | 2                              | \$ 50,000                    | \$ 100,000   |
| Legal Secretarial          | 3                              | 5,000                        | 15,000       |
| Information Processing     | 5                              | 20,000                       | 100,000      |
| Agri-Mechanics             | 3                              | 25,000                       | 75,000       |
| Advanced Culinary Arts     | 4                              | 15,000                       | 60,000       |
| CAD/CAM Applications       | 4                              | 50,000                       | 200,000      |
| Quality Control Technology | 2                              | 50,000                       | 100,000      |
| Tool and Die Making        | 1                              | 20,000                       | 20,000       |
| Electronic Communications  | 3                              | 45,000                       | 135,000      |
| Automated Manufacturing    | 1                              | 96,000                       | 96,000       |
| Automotive Technology      | 4                              | 47,000                       | 188,000      |
| Advanced Welding Processes | 2                              | 93,000                       | 186,000      |
| Electro-Mechanical         | 4                              | 45,000                       | 180,000      |
|                            | 38                             | N/A                          | \$1,455,000  |

## MODERNIZING VOCATIONAL PROGRAMS

### A. Recommendation

State and federal funds should be increased in the amount of \$3 million each year for the next three years for program modernization and new programs. These funds should be directed toward the following priorities: the redesign, refocus, and modernization of existing programs, including broadening the academic and technical foundation of programs and enabling selected programs within a region to offer an advanced level 13th-year option; the establishing of new programs; and the redesign and refocus of existing courses in grades 7 through 10 into comprehensive and articulated programs of career orientation and exploration.

### Current Status

There is a current annual investment of approximately \$1.7 million in state and federal funds directed toward modernizing and establishing new programs. This includes equipment replacement funds and incentive funds.

### Proposed Implementation Plan

Securing funds for modernization:

1. Review existing secondary and adult preparatory programs that have low enrollment, low placement, and low occupational demand. For those programs that do not meet standards, funds should be redirected to new programs or modernization of other existing programs.
2. Redirect current equipment replacement and incentive funds.
3. Submit an improvement package to the legislature for additional funds.

The state board of education will establish priorities for the modernization of existing programs and the establishment of new programs. Counties will make application to the state department of education for funds, based on the established priorities.

Part of the funds allocated to the counties will be on a formula basis with each county receiving an allocation. The other part of the funds will be available to counties on a project competitive basis. Counties will be required to submit an application to the department of education for project funds, which will be reviewed for approval based on established criteria. For funds received on a formula basis, counties will submit a plan indicating for what the funds will be spent, to be approved by the department of education.

Funds for modernization of existing programs may be used for the purchase of equipment and instructional materials. Funds for new programs may be used for equipment, instructional materials and supplies, and instructional salaries for one year.

Some of the strategies that will be utilized for modernizing equipment for vocational programs are as follows.

1. Develop a list of approvable major equipment for each vocational program through the use of a state technical committee.
2. Consider a state bid process for major equipment that all programs within a particular area may need.
3. Consider alternative ways for procurement of equipment, such as lease/purchase, equipment pools, cooperative purchasing with business and industry, work site training, simulators, and video representation.
4. Consider the changing of state tax laws to allow business and industry a tax break for donating equipment and materials for vocational education purposes.

#### Time Lines

The proposed plan would be implemented, starting with the 1988-89 school year and continuing through 1989-90 and 1990-91 school years.

#### Estimated Cost

FY 89-91 Redirect \$1.7 million from equipment replacement and incentive funds.

FY 89-91 Submit an improvement package to the legislature for \$3 million each year.

Total of \$4.7 million each year for FY 89-91.

#### Policy Needed

None

#### B. Recommendation

Establish a science, math, and technology option at vocational centers. One pilot site should be established each year for the next three years.

#### Current Status

A science, math, and technology option is not available at vocational centers.

#### Proposed Implementation Plan

One science, math, and technology program option should be established at a vocational center on a demonstration basis. The purpose of this option would be to serve students who have exceptional aptitude and interest in the physical, mathematical, and computer sciences and who intend to pursue college preparation in science, engineering, or related fields. This

approach will provide counties that have small high schools the opportunity to concentrate on well-equipped laboratories and outstanding faculty in one location that would be impossible in each school.

The science, math, and technology option would be a planned three-hour block during each of the last two years of high school. Students would complete two units each in advanced math, science, and technology. One of the technology units would be designed as a six- or nine-week segment to familiarize the students with how to use tools, materials, and technology in various technology-related laboratories.

The second technology unit would be earned through independent research and experimentation in the technology lab or labs of students' choice. The purpose of the technology unit would not be to teach employment skills; rather, they would serve as extensions of math and science course work, allowing students the opportunity to conduct applied math and science projects. Students should have access to labs in at least five areas, such as computer systems, telecommunications, graphics and computer drafting, electronics technology, fiber optics, principles of technology, automated manufacturing, robotics, and instrumentation and controls.

#### Time Lines

Establish an option at a vocational center each year for three years (FY 89, FY 90, and FY 91).

#### Estimated Cost

FY 89 - \$50,000; FY 90 - \$50,000; FY 91 - \$50,000  
(Need additional funds)

#### Policy Needed

None

#### C. Recommendation

Establish technical committees to assist in the updating of curriculum content, identification of major equipment, and establishing program standards.

#### Current Status

Presently, technical committees have been established in the areas of health occupations, metal trades, and employability skills.

#### Proposed Implementation Plan

Technical committees should be established for all areas of vocational education, such as building construction, electronics, automotive mechanics, marketing education, business education, etc. Each technical committee should consist of five to 15 members and include representatives from organized labor (where applicable), professional and trade organizations, and employers from the industry or occupation for which the

committee is established. Selection of members shall be based on demonstrated interest and capability. Term of membership for committee members shall be until they complete their assignment, which should take approximately one year. Each technical committee will determine the number of meetings needed per year. Typically, a committee will meet two to four times per year.

#### Time Lines

Five technical committees will be established each year until all program areas have been covered.

#### Estimated Cost

It is estimated that the cost for each technical committee will be approximately \$3,000.

FY 89 - \$15,000; FY 90 - \$15,000; FY 91 - \$15,000  
(Redirect current funds)

#### Policy Needed

None

#### D. Recommendation

An effective accountability system should be established to direct attention to those student outcomes and program standards that are considered most important. Data should be collected on common criteria to determine whether or not schools and school systems meet established expectations.

The West Virginia Board of Education should establish as a goal a 60% placement rate for completers of vocational preparatory programs. Successful placement would be considered if a student were employed; continuing their education; or in the armed forces. Also, an enrollment standard of a minimum of 15 students in secondary and adult preparatory programs, with weighting given for disadvantaged and handicapped students, should be established. Also, students that are required to have clinical experiences or supervised occupational experience programs will be weighted.

#### Current Status

Presently, vocational programs are monitored each year based on minimum enrollment standards, which are 10 students per class. Also, all vocational programs are evaluated, as a part of the county accreditation review, once every four years.

#### Proposed Implementation Plan

Each year a program review will be conducted to determine if the standards have been met regarding the 60% placement rate and minimum of 15 students per class.

Programs failing to meet the minimum enrollment and placement standards will be required to submit an improvement plan. The improvement plan will give consideration to surveys from business and industry, parents, and students. If the data indicates that the program is no longer needed, the program will be discontinued.

Counties will be encouraged and assisted in getting programs accredited where accrediting agencies are available. An example: Automotive mechanics programs should be accredited by the National Automotive Technician Education Foundation, Incorporated. The automotive industries have joined together in a special effort to upgrade the quality of automotive mechanics programs nationwide, and to assure that those completing the programs obtain the knowledge and skills for today's automotive technology.

#### Time Lines

Begin the monitoring of programs based on placement and minimum enrollment during FY 89.

Continue the on-site evaluation of programs on a four-year cycle.

Accredit at least five vocational automotive mechanics programs per year by the National Automotive Technician Education Foundation, Incorporated, starting in FY 89.

#### Estimated Cost

Monitoring of vocational programs on an annual basis: FY 89 - \$4,000;  
FY 90 - \$4,000; FY 91 - \$4,000  
(Redirect current funds)

On-site vocational evaluation of 14 counties per year: FY 89 - \$14,000;  
FY 90 - \$14,000; FY 91 - \$14,000  
(Redirect current funds)

Accreditation of five automotive mechanics programs per year: FY 89 - \$5,000; FY 90 - \$5,000; FY 91 - \$5,000  
(Redirect current funds)

#### Policy Needed

Develop a policy that would outline the standards for approving the operation of vocational programs.

#### E. Recommendation

State appropriations should be requested to match federal setaside funds for disadvantaged students. Funds may be utilized for both academically and economically disadvantaged students, with first priority given to improving the basic skills of academically disadvantaged students.

### Current Status

Approximately \$1.2 million in federal funds are utilized for academically and economically disadvantaged students. The funds are being utilized for supportive services, special programs, and work study.

### Proposed Implementation Plan

An academically disadvantaged student is a student (other than handicapped) who requires special services in order to succeed in vocational education programs and who meets one or more of the following standards as indicators of a low achiever.

1. Scores below the 25th percentile on standardized achievement or aptitude tests;
2. Whose secondary grades are below 2.0 on a 4.0 scale (where the grade A equals 4.0); or
3. Scores below the 25th percentile in either math or reading.

An economically disadvantaged student is a student (other than handicapped) who requires special services in order to succeed in vocational education programs and who meets one or more of the following standards as indicators of low income.

1. Family income at or below the official poverty line established by the director of the Office of Management and Budget;
2. Eligible for free or reduced-price school lunches;
3. Eligible for Aid to Families with Dependent Children (AFDC) or other public assistance programs;
4. Eligible for participation in programs assisted under Title II of the Job Training Partnership Act (JTPA); or
5. Receiving a Pell Grant or comparable state program of need-based financial assistance.

The following are examples of the types of services or activities that may be approvable for funding.

1. Assessment of the student's academic ability and achievement levels
  - a. Analysis of academic records of students
  - b. Educationally testing to determine academic levels, abilities, special vocational needs and potential for success in a vocational program, and job placement
  - c. Counseling services associated with the assessment process

- d. Assessment and evaluation instruments for secondary students and for adults upon entering adult vocational programs
  - e. Preparation of diagnostic and evaluation tools
2. Modification and adaptation of curriculum and materials
- a. Analysis of instructional materials for academic levels
  - b. Development of competency-based materials related to specific job requirements
  - c. Analysis of curriculum for the purpose of determining student's potential for success, to include thinking and decision-making skills
  - d. Specifically designed workbooks and textbooks
  - e. Task analysis of occupations to identify possible modification in curriculum, instruction, and materials
  - f. Development and purchase of curriculum materials that are written on lower reading levels and math levels
  - g. Development of materials that are consistent with the student's learning style
  - h. Application of the latest technology advances to courses of instruction
  - i. Job-seeking and job-keeping skills, keyboarding, and computer literacy
3. Remedial services designed to assist students in regular vocational programs
- a. Technical skills remediation in relationship to math, reading, communication, and decision-making skills
  - b. Basic skills remediation, if necessary, in order for students to achieve minimum vocational competencies and access vocational training
4. Staff development required to prepare personnel to work with disadvantaged students
- a. Training programs for teachers and counselors, both preservice and inservice
  - b. Travel expenses and salaries of local staff members when such travel expenses are directly related to staff development designed to prepare personnel to work with disadvantaged students (e.g., seminars, conferences, workshops, and special institutes)

5. Additional staff required to provide supplemental services, including the salaries of personnel
6. Special programs only for costs that exceed the per-pupil cost for comparable vocational programs for non-disadvantaged students
7. Equipment -- Additional equipment that is essential to successful participation of disadvantaged students in vocational programs. Additional equipment needs must be determined by an assessment of the student's special needs and documented in the student's career development plan.

Funds will be allocated to the counties on a formula basis, with each county receiving an allocation. Counties then will submit a proposal outlining how they will spend the funds. Application will be based on guidelines provided by the state department of education.

#### Time Lines

Implementation will begin during the 1988-89 school year and be on a continuous basis.

#### Estimated Cost

State funds in the amount of \$1.2 million should be requested to match the current \$1.2 million in federal funds.

#### Policy Needed

None

## PERSONNEL DEVELOPMENT

### A. Recommendation

The non-degreed vocational teacher brings a different and valuable background to the public schools of West Virginia which should not be lost; however, for these non-degreed teachers to make their greatest contribution to the educational advancement of the youth and adults of the state, they need to build on their valuable practical experience in an appropriate degree program that gives proper emphasis to improving their basic, academic, technical, and professional knowledge and skills.

The West Virginia Board of Education should establish as a long-term goal the staffing of secondary vocational programs with teachers who have completed a preparation program that gives adequate attention to a sound general, technical, and professional education foundation.

### Current Status

Current policy provides for initial certification of non-degreed vocational teachers in one of three ways:

- \* Six years of verifiable occupational work experience and a high school diploma
- \* Successful completion of an occupational competency test, high school diploma, and one year of work experience
- \* Bachelor's Degree and three years of work experience

The current vocational certificate program is weak in terms of academic foundations, skills required for teaching and reinforcing basic and academic competencies needed for the world of work, and technical knowledges that underlie teaching specializations.

### Proposed Implementation Plan

Beginning July 1, 1990, the initial certification of full-time non-degreed teachers should be based on: (1) having achieved passing scores on an occupational competency test and pre-professional skills test prior to employment; and (2) having at least three years of successful work experience in the occupational field for which certification is requested.

The requirements of the vocational certificate incentive program should be revised so that more emphasis is placed on: (1) strengthening teachers' general education and academic foundations; (2) developing teachers' ability to teach and reinforce basic and academic skills needed for the world of work; (3) broadening teachers' technical knowledge base that underlies their specialization; and (4) completing an approved teacher education degree program.

### Time Lines

New initial certification requirements to be in place by FY 90.

Revised vocational certificate incentive program for non-degreed teachers to be completed by FY 90.

### Estimated Cost

New certification requirement - \$45,000 per year

Revised vocational certificate incentive program - \$200,000 per year

### Policy Needed

Revise Policy 5202, Section 9A and 9B.

## **B. Recommendation**

The state board of education should authorize the bureau of vocational, technical and adult education to pursue special recruitment and teacher preparation activities to assure an adequate supply of well-prepared vocational teachers.

### Current Status

Approved vocational educational personnel preparation programs include: Vocational Agriculture (1); Business Education (10); Consumer and Homemaking (6); Distributive Education (1); Industrial Arts/Technology (3); Occupational Home Economics (1); Prevocational Exploration (1); Vocational-Technical Education (1); and Vocational Administration (1).

No annual supply and demand study is currently being done in reference to vocational personnel in the state.

No formal recruitment/marketing program exists in terms of identifying and encouraging individuals to pursue a career as a vocational teacher.

### Proposed Implementation Plan

The bureau of vocational, technical and adult education should publish an annual supply and demand study of vocational education personnel. This supply and demand study should identify teaching fields with current and projected critical shortages and areas of the state that are experiencing greater difficulty in finding qualified personnel.

A staff member of the bureau of vocational, technical and adult education should be assigned the responsibility of developing and implementing a marketing program to introduce secondary, two-year, and four-year college students to the professional career opportunities for teaching in the state's vocational education programs. A part of the recruitment plan should include involving secondary and postsecondary vocational teachers in the identification and recruitment of potential teachers.

Responsibilities of the assigned staff should also include assisting: (1) teacher education institutions in developing assessment procedures for awarding college credit for equivalent learning already acquired; (2) teacher education institutions in planning a degree program that would blend work experience coursework at community colleges and at senior institutions into a coherent degree program; (3) prospective teachers in obtaining financial aid or work experience toward a degree; and (4) non-degreed teachers in pursuing a degree program.

Institutions of higher education should continue offering high-quality undergraduate and graduate programs in vocational education relevant to the changing expectations of vocational-technical education teachers and administrators.

#### Time Lines

Complete first annual supply and demand report by FY 89.

Implement a marketing program for vocational personnel beginning in 1989 and operate on a continuing basis.

Build on the current undergraduate and graduate programs for preparation of vocational education personnel.

#### Estimated Cost

Marketing Program - \$5,000 per year

Annual Supply and demand report - \$3,000 per year

Continuation of undergraduate and graduate preparation programs - \$300,000 per year

#### Policy Needed

None

#### C. Recommendation

To determine other changes needed in approved teacher education programs and certification, the state board of education should authorize the bureau of vocational, technical and adult education to establish a task force on teacher education and certification. This task force should report, within 12 months, their recommendations for revising teacher education approved program criteria and certification standards. The task force should be composed of representatives from vocational teacher education, Council on Vocational Education, vocational and academic teachers, local school superintendents, vocational directors/administrators, and bureau of vocational, technical and adult education staff.

#### Current Status

No task force exists to study the status of current vocational teacher education programs and certification.

### Proposed Implementation Plan

A task force should be appointed to examine both preservice and inservice programs and make recommendations for improving the general education and academic foundation of vocational teachers; obtaining coherence of academic courses--mathematics, science, etc.--that provide a foundation for their occupational discipline; establishing standards for related technical content courses required of vocational teachers; and revising professional education courses in regard to the changing expectations for vocational teachers.

### Time Lines

To be completed in FY 89.

### Estimated Cost

\$10,000

### Policy Needed

None

### D. Recommendation

The West Virginia Board of Education should establish, as a priority, the development of inservice programs to promote academic competencies of current vocational teachers, the applied teaching skills of current academic teachers, and the technical update of current vocational teachers.

### Current Status

Policy 5500, Section 4.2, requires all professional staff to participate in at least 12 clock hours of job-related staff development each year.

Policy 5500, Section 5.9, states that a personnel development plan may be developed based on employee evaluation data.

Policy 5202, Section 8C, requires all teachers not holding a permanent certificate to complete six semester hours of college coursework every five years as a basis for certificate renewal.

Current policy does not address the issue of using CEUs for recertification/salary advancement.

Summer institutes and other inservice activities are currently offered, but few focus on the issue of basic skills.

### Proposed Implementation Plan

The state board of education should encourage local systems to have math, science, and English teachers complete inservice activities designed to improve academic instruction for those students who learn best from an

applied teaching approach. The staff development program should focus on how the teacher's discipline is used in different occupational settings, instructional methods for applied instruction and coordination with vocational teachers, improving academic instruction for vocational students, and acquainting teachers with instructional and student materials that have been developed in their discipline area.

Local school systems will be encouraged to conduct an individual assessment of current vocational teachers and develop for each an individual professional development plan for areas of assessed need. The areas of assessment would include at least the following areas: basic skills; math, science, and technical knowledge that underlie their occupational field; instructional methods that stress reinforcing basic skills, intellectual skill development, and teaching of basic mathematics, scientific and technical concepts that underlie the practices of their field; and methods of instructional coordination with academic teachers who work with special students. The state department of education, through a task force of teachers, teacher educators, and local administrators, should develop approaches and procedures for local school systems to follow in conducting the needs assessment. The local needs assessment process would determine the amount and types of staff development needed by each teacher.

The state board of education should encourage all vocational teachers to complete appropriate technical update to remain current in their occupational areas. Technical update should become a part of the needs assessment and professional growth plan developed for each teacher by the local school system. Prescribed technical update could be met through industry schools; local employers' training; approved back-to-industry experience; approved courses at postsecondary technical schools, colleges, and universities; or state department of education-sponsored workshops. State department of education policy should be revised to permit the use of up to six continuing education units (CEUs) for teacher recertification and salary advancement. Only technical update institutes/workshops would be eligible for CEU credit. Ten hours of class instruction would equal one CEU.

The state board of education should authorize the development and implementation of a delivery system for improving the academic skill levels of students enrolled in vocational education programs. The delivery system should include a series of workshops, courses, or seminars on competencies and teaching methods for reinforcing basic competencies, through the vocational curriculum, on methods for coordinating vocational and academic instruction, and on teaching academic content in an applied manner.

All personnel development activities (i.e., workshops, seminars, courses) should be delivered through the most effective form of technology. Efforts should be expended in providing personnel development through video-based systems, distance learning, CAI, etc. A task force should be appointed within the bureau of vocational, technical and adult education to steer this effort and to investigate alternative means of delivering personnel development activities.

The bureau of vocational, technical and adult education should assist local education agencies in special personnel development efforts related to the redesign and refocus of vocational education.

#### Time Lines

Inservice programming for academic teachers to be done FY 89 through FY 91.

Mechanism for local assessment of individual personnel development needs and formulation of individual plans to be in place by FY 90.

Task force to develop local personnel development needs assessment procedure to conclude work by FY 89.

Requirement for all vocational teachers to complete specified amount of inservice education, based on professional development plan, to be in place by FY 91.

Policy allowing the use of six CEUs of technical update for recertification and salary advancement to be in place by FY 90.

Technical update requirement for all vocational teachers to be in place by FY 91.

Formulation of inservice activities and a delivery system for assisting vocational teachers to improve the basic skill level of vocational students to be in place by FY 89 and continue through FY 91.

Task force to investigate and develop a comprehensive delivery model for personnel development activities to complete initial work by FY 89 and continue through FY 91.

Technical assistance to be provided LEAs for special professional development needs shall be an ongoing effort, FY 89-91.

#### Estimated Cost

Inservice of academic teachers in reference to applied teaching methods - \$30,000 per year

Local personnel development needs assessment procedure - \$10,000

Technical update of vocational personnel - \$200,000 per year

Inservice of vocational teachers in reference to improvement of basic skills of vocational students - \$30,000 per year

Development of comprehensive delivery model for personnel development activities - \$10,000

Technical assistance to LEAs in reference to redesign and refocus personnel development needs - \$25,000 per year

Policy Needed

Revise Policy 5500, Section 5.8 and 5.9, to encourage the development of individual professional development plans.

Revise West Virginia Code 18A-3-3 and Policy 5202, Section 8C, to allow use of specified number of continuing education units (CEUs) for recertification and salary advancement.



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